GridMonitor: Integration of Large Scale Facility Monitoring with Meta Data Service in Grid Environment*

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Abstract

Grid computing consists of the coordinated use of large sets of diverse, geographically distributed resources for high performance computation. Effective monitoring of these computing resources is extremely important to allow efficient use on the Grid. The large number of heterogeneous computing entities make the task extremely challenging. In this work, we describe a Grid Monitoring Architecture that captures and makes available the most important information from a large computing facility. The GMA consists of four tiers: local monitoring, archiving, publishing and harnessing. This architecture was applied on a large scale linux farm and network infrastructure. It can be used by many higher-level grid services including scheduling services and resource brokering.
Keywords: Grid Monitoring (GridMonitor), Grid Monitoring Architecture (GMA), Monitoring and Discovery Service (MDS).

*This work is supported by PPDG/ATLAS grants